IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A process for the preparation of macrocyclic ketones of the formula I

where

X is a mono- or polyunsaturated or saturated C_{10} - C_{17} -alkyl radical which may optionally be substituted by a C_1 - C_6 -alkyl radical,

said process comprising direct cyclization of a compound of the formula II

$$R_1O$$
 X O OR_2 (II),

where

R₁, R₂, in each case independently of the other, may be identical or different and are hydrogen or C₁-C₆-alkyl and X has the meaning given above, and wherein said cyclization takes place in the gas phase over a heterogeneous catalyst, comprising, as active components, oxides, hydroxides or carboxylates of subgroups I to VIII, or of main groups II, III and IV, wherein the compound of formula (II) is evaporated and then passed at a desired reaction temperature in gaseous form over the catalyst arranged in a fixed bed.

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2. (Previously Presented) The process as claimed in claim 1, wherein the reaction takes place at temperatures of from 200 to 600°C.

Claims 3-4(Cancelled).

- 5. (Previously Presented) The process as claimed in claim 1, wherein the catalyst is a heterogeneous catalyst, comprising, as active components, oxides, hydroxides or carboxylates of subgroups I to VIII.
- 6. (Previously Presented) The process as claimed in claim 1, wherein the catalyst is a heterogeneous catalyst, comprising, as active components, oxides, hydroxides or carboxylates of subgroup IV.
- 7. (Previously Presented) The process as claimed in claim 1, wherein the catalyst is doped with oxides of main group I.
- 8. (Previously Presented) The process as claimed in claim 1, wherein the catalyst is TiO₂.
- 9. (Previously Presented) The process as claimed in claim 1, wherein the catalyst is TiO₂ doped with alkali metal oxides or alkaline earth metal oxides.
- 10. (Previously Presented) The process as claimed in claim 1, wherein the compound of the formula I is selected from the group consisting of exaltone and civetone.
- 11. (Previously Presented) The process as claimed in claim 1, wherein the compound of the formula II is selected from the group consisting of dimethyl 1,16-hexadecanedioate and dimethyl 1,18-octadec-9-enedicarboxylate.
- 12. (Previously Presented) The process as claimed in claim 1, wherein the reaction is carried out in the presence of from 0 to 30% by weight of water, based on the compound of the formula II.
- 13. (Previously Presented) The process as claimed in claim 2, wherein the catalyst is a fixed-bed catalyst.

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- 14. (Previously Presented) The process as claimed in claim 2, wherein the catalyst is a heterogeneous catalyst, comprising, as active components, oxides, hydroxides or carboxylates of subgroups I to VIII, or of main groups II, III, and IV.
- 15. (Previously Presented) The process as claimed in claim 2, wherein the catalyst is a heterogeneous catalyst, comprising, as active components oxides, hydroxides or carboxylates of subgroups I to VII.
- 16. (Previously Presented) The process as claimed in claim 2, wherein the catalyst is a heterogeneous catalyst, comprising, as active components, oxides, hydroxides or carboxylates of subgroup IV.
- 17. (Previously Presented) The process as claimed in claim 2, wherein the catalyst is doped with oxides of main group I.
- 18. (Previously Presented) The process as claimed in claim 2, wherein the catalyst is TiO₂.
- 19. (Previously Presented) The process as claimed in claim 2, wherein the catalyst is TiO₂ doped with alkali metal oxides or alkaline earth metal oxides.
- 20. (Previously Presented) The process as claimed in claim 2, wherein the compound of the formula I is selected from the group consisting of exaltone and civetone.